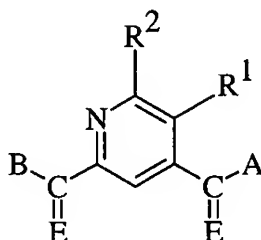


## AMENDMENTS TO THE CLAIMS

**Claim 1 (amended).** A method for ~~inhibiting matrix metalloproteinase enzymes~~  
treating osteoarthritis in a mammal comprising administering to the  
 mammal an ~~MMP~~ MMP-13 inhibiting amount of a compound of  
 Formula I



or a pharmaceutically acceptable salt thereof,

wherein:

R<sup>1</sup> and R<sup>2</sup> independently are hydrogen, halo, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkyl,

C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, NO<sub>2</sub>, NR<sup>4</sup>R<sup>5</sup>, CN,  
 or CF<sub>3</sub>;

E is independently O or S;

A and B independently are ~~OR<sup>4</sup> or NR<sup>4</sup>R<sup>5</sup>~~, wherein R<sup>4</sup> is hydrogen and  
R<sup>5</sup> is (CH<sub>2</sub>)<sub>n</sub>(1,3-benzodioxolyl);

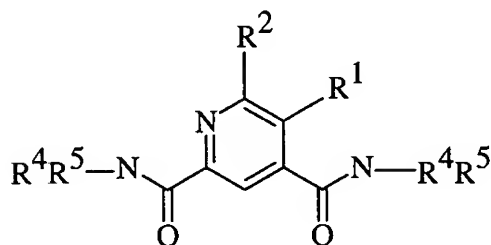
R<sup>4</sup> and R<sup>5</sup> independently are H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub>  
 alkynyl, (CH<sub>2</sub>)<sub>n</sub> aryl, (CH<sub>2</sub>)<sub>n</sub> cycloalkyl, (CH<sub>2</sub>)<sub>n</sub> heteroaryl, or R<sup>4</sup>  
 and R<sup>5</sup> when taken together with the nitrogen to which they are  
 attached complete a 3- to 8-membered ring containing carbon  
 atoms and optionally containing a heteroatom selected from O, S,  
 or NH, and optionally substituted or unsubstituted;

n is an integer from 0 to 6.

A

Claim 2 (cancelled).

Claim <sup>23</sup>3 (amended). A method for ~~inhibiting matrix metalloproteinase enzymes~~  
treating osteoarthritis in a mammal comprising administering to the  
 mammal an ~~MMP~~ MMP-13 inhibiting amount of a compound of  
Formula III



or a pharmaceutically acceptable salt thereof,

wherein R<sup>1</sup> and R<sup>2</sup> independently are hydrogen, halo, hydroxy, C<sub>1</sub>-C<sub>6</sub>  
 alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, NO<sub>2</sub>,  
 NR<sup>4</sup>R<sup>5</sup>, CN, or CF<sub>3</sub>;

R<sup>4</sup> and R<sup>5</sup> in R<sup>1</sup> and R<sup>2</sup> independently are H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub>  
 alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, (CH<sub>2</sub>)<sub>n</sub> aryl, (CH<sub>2</sub>)<sub>n</sub> cycloalkyl, (CH<sub>2</sub>)<sub>n</sub>  
 heteroaryl, wherein each CH<sub>2</sub> is optionally substituted by one or  
 more C<sub>1</sub>-C<sub>6</sub> alkyl, or R<sup>4</sup> and R<sup>5</sup> when taken together with the  
 nitrogen to which they are attached complete a 3- to 8-membered  
 ring containing carbon atoms and optionally containing a  
 heteroatom selected from O, S, or NH, and optionally substituted  
 or unsubstituted;

Each R<sup>4</sup> in Formula III is hydrogen;

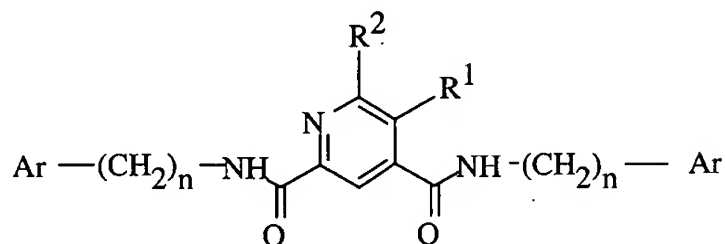
Each R<sup>5</sup> in Formula III is (CH<sub>2</sub>)<sub>n</sub>(1,3-benzodioxolyl);

n is an integer of from 0 to 6.

Claim 4 (cancelled).

A

**Claim 3 (amended).** A method for ~~inhibiting matrix metalloproteinase enzymes~~  
treating osteoarthritis in a mammal comprising administering to the  
 mammal an ~~MMP~~ MMP-13 inhibiting amount of a compound of  
 Formula V



V

or a pharmaceutically acceptable salt thereof,  
 wherein n is 1 to 6;

R<sup>1</sup> and R<sup>2</sup> independently are hydrogen, halo, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkyl,

C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, NO<sub>2</sub>, NR<sup>4</sup>R<sup>5</sup>, CN,  
 or CF<sub>3</sub>;

R<sup>4</sup> and R<sup>5</sup> independently are H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub>  
 alkynyl, (CH<sub>2</sub>)<sub>n</sub> aryl, (CH<sub>2</sub>)<sub>n</sub> cycloalkyl, (CH<sub>2</sub>)<sub>n</sub> heteroaryl,

wherein n is 0 to 6, or R<sup>4</sup> and R<sup>5</sup> when taken together with the  
 nitrogen to which they are attached complete a 3- to 8-membered  
 ring containing carbon atoms and optionally containing a  
 heteroatom selected from O, S, or NH, and optionally substituted  
 or unsubstituted;

Each Ar is (1,3-benzodioxolyl) ~~independently aryl or Het, wherein aryl is~~  
~~phenyl or substituted phenyl;~~

~~Het is an unsubstituted or substituted heteroaryl group.~~

**Claim 4 (amended).** A compound of Formula I

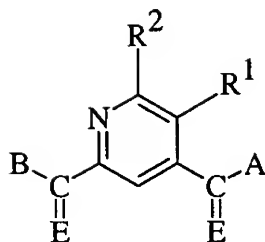
A

10/071,073

- 5 -

PCA518-01CFP

T<sub>1</sub> 0540



I

or a pharmaceutically acceptable salt thereof,

wherein

R<sup>1</sup> and R<sup>2</sup> independently are hydrogen, halo, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkyl,

C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, NO<sub>2</sub>, NR<sup>4</sup>R<sup>5</sup>, CN, or CF<sub>3</sub>;

E is independently O or S;

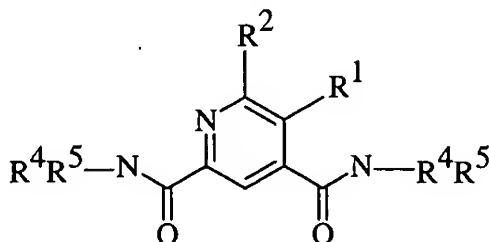
A and B independently are ~~OR<sup>4</sup> or NR<sup>4</sup>R<sup>5</sup>~~ N(H)(CH<sub>2</sub>)<sub>n</sub>(1,3-benzodioxolyl);

R<sup>4</sup> and R<sup>5</sup> independently are H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, (CH<sub>2</sub>)<sub>n</sub> aryl, (CH<sub>2</sub>)<sub>n</sub> cycloalkyl, (CH<sub>2</sub>)<sub>n</sub> heteroaryl, or R<sup>4</sup> and R<sup>5</sup> when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring containing carbon atoms and optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

n is an integer from 0 to 6.

Claim 7 (cancelled).

Claim 8<sup>5</sup> (amended). A compound of Formula III



III

T<sub>1</sub> 0550

A

or a pharmaceutically acceptable salt thereof,

wherein  $R^1$  and  $R^2$  independently are hydrogen, halo, hydroxy,  $C_1$ - $C_6$  alkyl,  $C_1$ - $C_6$  alkoxy,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl,  $NO_2$ ,  $NR^4R^5$ , CN, or  $CF_3$ ;

$R^4$  and  $R^5$  in  $R^1$  and  $R^2$  independently are H,  $C_1$ - $C_6$  alkyl,  $C_2$ - $C_6$  alkenyl,  $C_2$ - $C_6$  alkynyl,  $(CH_2)_n$  aryl,  $(CH_2)_n$  cycloalkyl,  $(CH_2)_n$  heteroaryl, wherein each  $CH_2$  is optionally substituted by one or more  $C_1$ - $C_6$  alkyl, or  $R^4$  and  $R^5$  when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring containing carbon atoms and optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

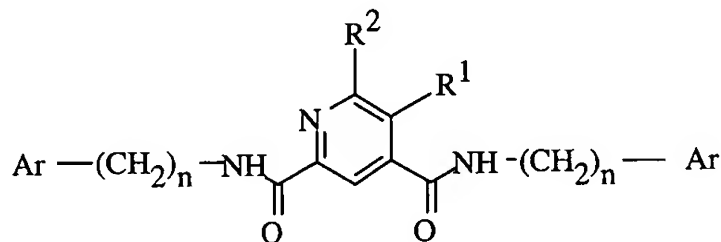
Each  $R^4$  in Formula III is hydrogen;

Each  $R^5$  in Formula III is  $(CH_2)_n(1,3\text{-benzodioxolyl})$ ;

$n$  is an integer of from 0 to 6.

Claim 9 (cancelled).

Claim 10 (amended). A compound of Formula V



V

or a pharmaceutically acceptable salt thereof,

wherein  $n$  is 1 ~~0 to 6~~;


A

R<sup>1</sup> and R<sup>2</sup> independently are hydrogen, halo, hydroxy, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>1</sub>-C<sub>6</sub> alkoxy, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, NO<sub>2</sub>, NR<sup>4</sup>R<sup>5</sup>, CN, or CF<sub>3</sub>;

R<sup>4</sup> and R<sup>5</sup> independently are H, C<sub>1</sub>-C<sub>6</sub> alkyl, C<sub>2</sub>-C<sub>6</sub> alkenyl, C<sub>2</sub>-C<sub>6</sub> alkynyl, (CH<sub>2</sub>)<sub>n</sub> aryl, (CH<sub>2</sub>)<sub>n</sub> cycloalkyl, (CH<sub>2</sub>)<sub>n</sub> heteroaryl, wherein n is 0 to 6, or R<sup>4</sup> and R<sup>5</sup> when taken together with the nitrogen to which they are attached complete a 3- to 8-membered ring containing carbon atoms and optionally containing a heteroatom selected from O, S, or NH, and optionally substituted or unsubstituted;

Each Ar is (1,3-benzodioxolyl) independently aryl or Het, ~~wherein aryl is phenyl or substituted phenyl;~~

~~Het is an unsubstituted or substituted heteroaryl group.~~

 **Claim 11 (cancelled).**

**Claim ~~12~~<sup>2</sup> (original).** A pharmaceutical composition, comprising a compound of Claim ~~4~~<sup>1</sup>, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier, diluent, or excipient.

**Claim 13 (cancelled).**

**Claim ~~14~~<sup>8</sup> (original).** A pharmaceutical composition, comprising a compound of Claim ~~5~~<sup>3</sup>, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier, diluent, or excipient.

**Claim 15 (cancelled).**

A

**Claim 16** (original). A pharmaceutical composition, comprising a compound of Claim <sup>6</sup>10, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier, diluent, or excipient.

**Claim 17** (amended). A pharmaceutical composition, comprising a compound of Claim ~~14~~ <sup>12</sup> Claim 36, or a pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier, diluent, or excipient.

*AI Cont*  
**Claim 18** (amended). A method for ~~inhibiting an MMP-13 enzyme~~ treating osteoarthritis in an animal, comprising administering to the animal an MMP-13 inhibiting amount of a compound of Claim <sup>11</sup>18, or a pharmaceutically acceptable salt thereof.

**Claims 19 and 20** (cancelled). ✓

**Claim 21** (original). A method for treating osteoarthritis, comprising administering to a patient in need of treatment an effective amount of a compound of Claim <sup>11</sup>21, or a pharmaceutically acceptable salt thereof.

**Claims 22-35** (cancelled). ✓

*Ar*  
**Claim 36** (new). A compound named pyridine-2,4-dicarboxylic acid bis-[(1,3-benzodioxol-5-ylmethyl)-amide].

A